Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

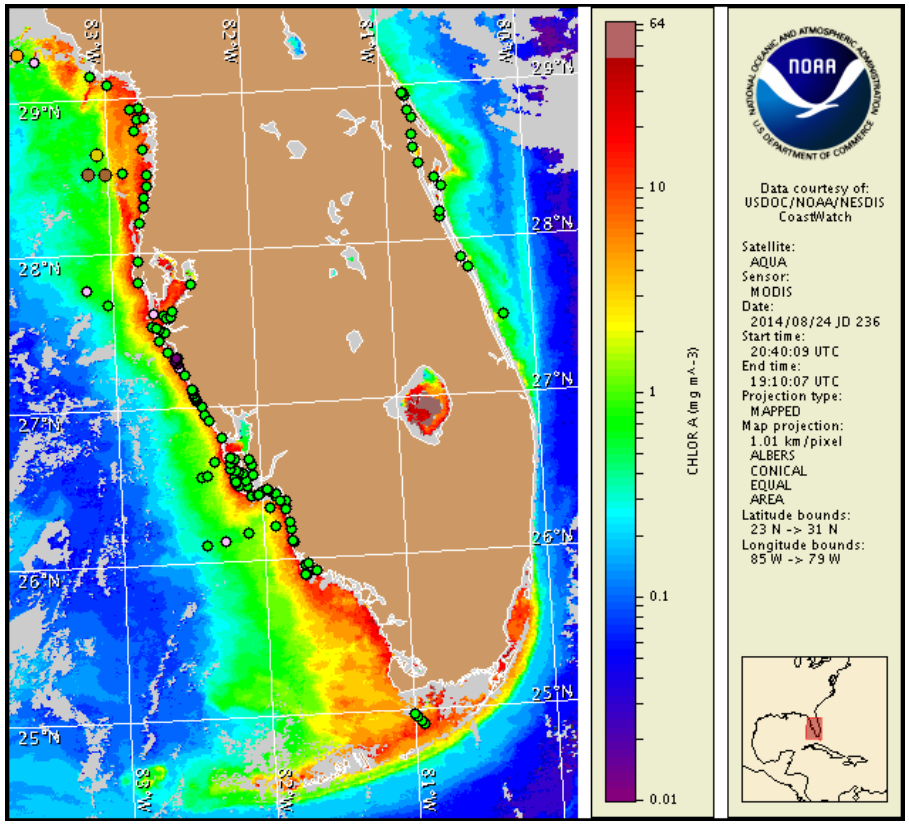
Monday, 25 August 2014

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, August 18, 2014



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from August 15 to 21: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Florida Fish and Wildlife Conservation Commission (FWC) Fish and Wildlife Research Institute. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Detailed sample information can be obtained through FWC Fish and Wildlife Research Institute at:

http://myfwc.com/redtidestatus

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit at: http://tidesandcurrents.noaa.gov/hab/bulletins.html

Conditions Report

Karenia brevis (commonly known as Florida red tide) ranges from not present to very low concentrations along the coast of southwest Florida and is not present in the Florida Keys. *K. brevis* ranges from not present to medium concentrations offshore the coast of southwest Florida. No respiratory irritation is expected alongshore west Florida Monday, August 25 through Tuesday, September 2. If field observations confirm *K. brevis* concentrations at the coast, this forecast will be updated prior to September 2.

Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations. Over the past several days, reports of dead fish have been received from offshore Citrus, Pasco and northern Pinellas counties.

Analysis

Due to the upcoming federal holiday, the next bulletin will be issued on Tuesday, September 2.

Dixie to Pinellas County: Samples collected along- and offshore west Florida over the past ten days identified not present to 'medium' concentrations of *Karenia brevis* 21-28 miles offshore Dixie, Hernando, and northern Pinellas counties, with the highest concentrations identified approximately 28 miles west of Axe Island in Dixie County (FWRI; 8/16-20). 'Low b' *K. brevis* concentrations were identified 25 miles offshore Hernando County and background concentrations were identified 21 miles offshore Dixie County and 25 miles offshore Pinellas County (FWRI; 8/16-20). Several samples collected alongshore Citrus, Hernando, and Pasco counties all indicate that *K. brevis* is not present at the coast (FWRI; 8/21).

Recent MODIS Aqua imagery along- and offshore west Florida (8/24, shown left) indicates that chlorophyll values in the vicinity of the offshore bloom area have continued to decrease (<1 μg/L) beyond 20 miles offshore. A distinct bloom feature has not been visible recently in satellite imagery, most likely due to increasing patchiness and the presence of concentrations below 10,000 cells/L. Elevated to high chlorophyll (3-20 μg/L) is visible within 20 miles of the coastline off Dixie to Pinellas counties, however, elevated chlorophyll values are not uncommon in this region and may not be due to *K. brevis*.

Dead fish, continue to be observed in the sampling area of the bloom, and have been reported offshore Citrus, Hernando, and Pinellas counties (FWRI; 8/21-24). No reports of respiratory irritation have been received alongshore from Dixie to Pinellas counties in the past week (FWRI, MML; 8/18-25).

Over the past few days, winds observed from the northwest to northeast may have promoted transport of the offshore surface *K. brevis* concentrations south and west. Variable winds forecasted over the next several days may maintain the location of surface *K. brevis* concentrations.

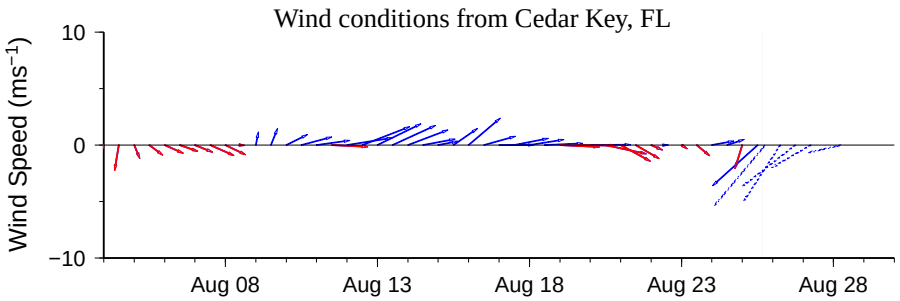
Manatee to Monroe County: Samples collected over the past week along- and offshore the coast of southwest Florida indicate that *K. brevis* concentrations range from not present to 'very low a' from Manatee to Monroe County, and are not present in the Florida Keys. Background to 'very low a' *K. brevis* concentrations were identified in

several samples collected alongshore northern Sarasota County (FWRI; 8/18-20) and one background concentration was identified offshore approximately 29 miles west of Naples Beach in Collier County (FWRI; 8/20). All other samples collected alongshore southwest Florida over the past week indicate that *K. brevis* is not present (FWRI, MML, SCHD, CCPCPD; 8/18-21).

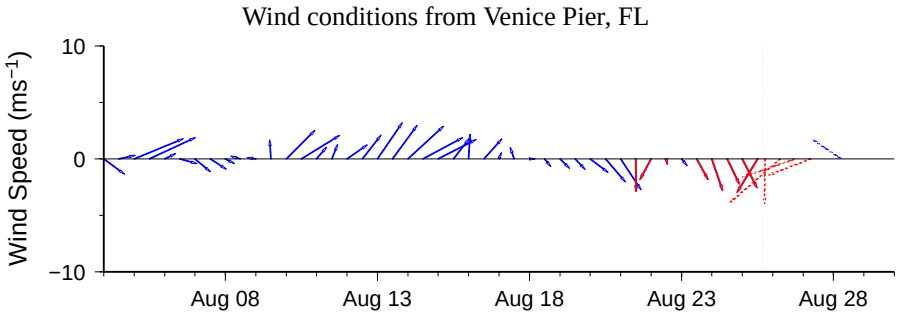
In MODIS Aqua imagery from 8/24 (shown left), elevated to high chlorophyll (3-20 μg/L) is visible stretching along- and offshore from Manatee to Monroe counties. Elevated chlorophyll along the coast may be the result of various algal species that have been reported throughout the region and not due to *K. brevis*.

Upwelling favorable winds forecast over the next several days may promote onshore transport of *K. brevis* concentrations alongshore southwest Florida.

Derner, Burrows



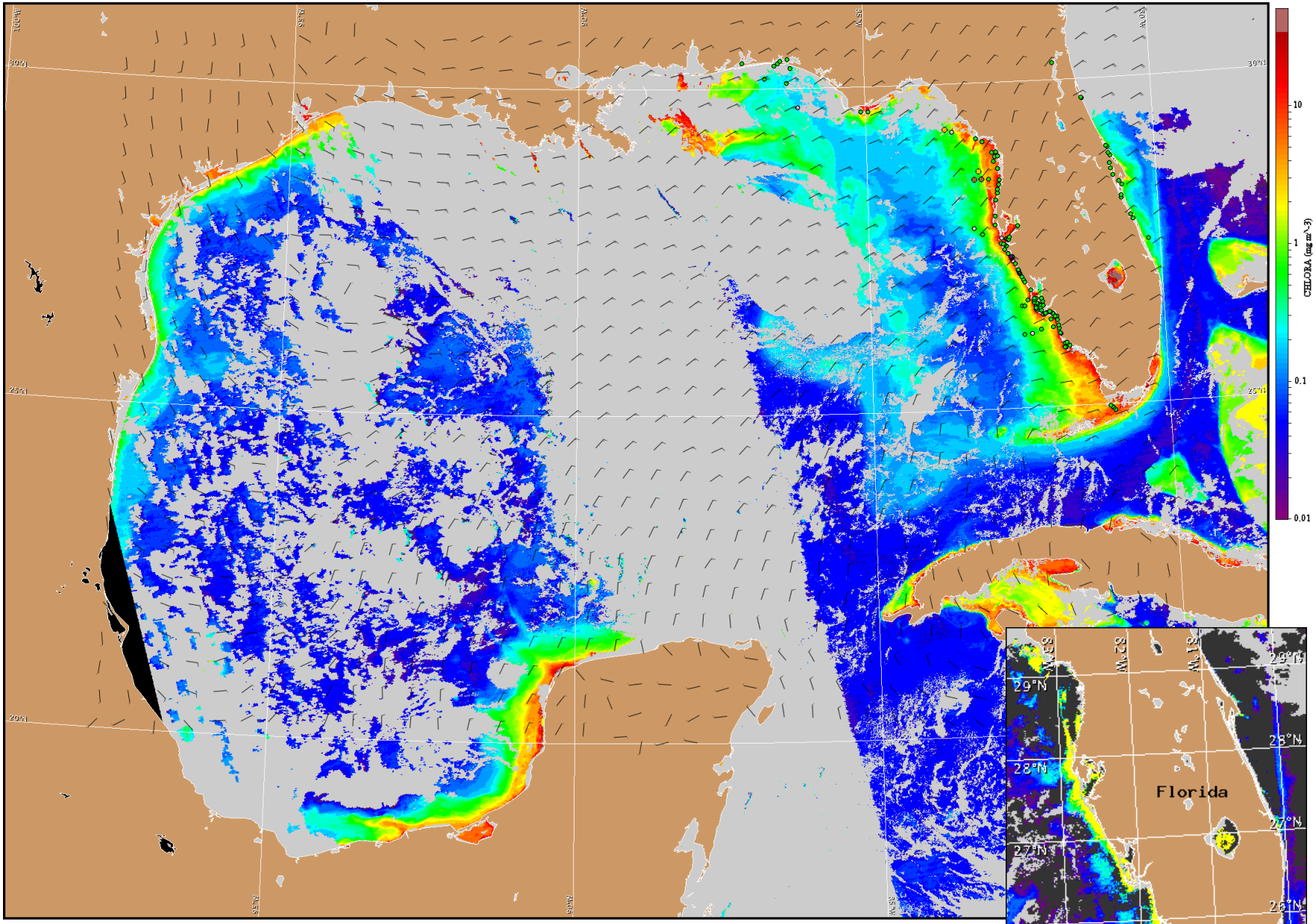
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).



Wind Analysis

Cedar Key : Northeast winds (10-20kn, 5-10m/s) today through Tuesday night becoming east (10-15kn, 5-8m/s) after midnight Tuesday. Northeast winds (10kn, 5m/s) Wednesday becoming northwest Wednesday afternoon. North winds (10kn) Wednesday night becoming east after midnight. Southeast winds (10kn) Thursday becoming southwest (5kn, 3m/s) in the afternoon through Thursday night. South winds (5kn) Friday becoming southwest in the afternoon.

Venice: Northeast winds (10-20kn) today through Tuesday. East winds (10-20kn) Tuesday night through Wednesday becoming northwest (5kn) Wednesday afternoon. Northeast winds (10kn) Wednesday night becoming east after midnight. Southeast winds (10kn) Thursday becoming south (5-10kn) Thursday afternoon through Friday. Southwest winds (10kn) Friday afternoon.



Satellite chlorophyll image and forecast winds for August 26, 2014 06Z with points representing cell concentration sampling data from August 15 to 21: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Florida Fish and Wildlife Conservation Commission (FWC) Fish and Wildlife Research Institute. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

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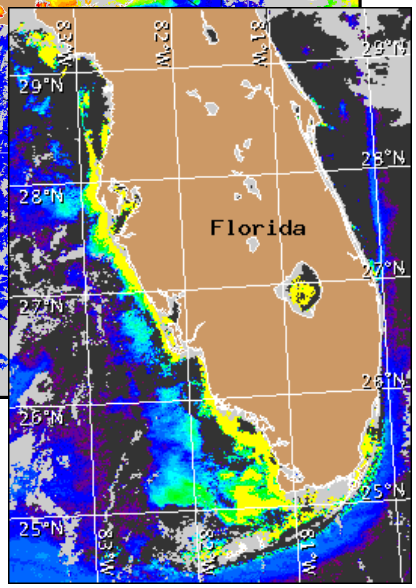

Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).